

What is claimed is:

1. A color-separating electrode structure for use in a color CRT, the structure including a color-separating electrode body which is substantially rectangular in form and fixed in a tensioned condition to a frame made by a sheet metal bending or flexing process, wherein

the frame includes two supporting parts opposed to each other, each of the supporting parts having a flexed portion that extends in parallel to an upper edge and a lower edge of the color-separating electrode body and has a predetermined curvature,

the color-separating electrode body being welded to the frame at contact portions thereof each of which is in contact with corresponding one of the flexed portions of the supporting parts.

2. An apparatus for manufacturing the color-separating electrode structure described in claim 1, the apparatus comprising:

a device for welding the color-separating electrode body to the frame along the contact portions by having two welding electrodes rotate to travel along their respective welding paths on a front face of the color-separating electrode body;

wherein each of the welding electrodes is tilted with respect to a plane including the contact portions by a predetermined angle in order that a welding face of each of the welding electrodes is substantially perpendicular to a straight line passing through a flexural center of corresponding one of the flexed portions and corresponding one of the contact portions.

3. An apparatus for manufacturing the color-separating

electrode structure according to claim 2, in which the predetermined angle is larger than an angle which the color-separating electrode body forms with the plane inside the frame and is smaller than an angle which the color-separating electrode body forms with the plane outside the frame.

4. An apparatus for manufacturing the color-separating electrode structure according to claim 2, in which an edge of each of the welding electrodes is chamfered.

5. An apparatus for manufacturing the color-separating electrode structure according to claim 3, in which an edge of each of the welding electrodes is chamfered.

6. An apparatus for manufacturing the color-separating electrode structure according to claim 2, in which a welding face of each of the welding electrodes is rounded to have a predetermined curvature.

7. An apparatus for manufacturing the color-separating electrode structure according to claim 3, in which a welding face of each of the welding electrodes is rounded to have a predetermined curvature.

8. An apparatus for manufacturing the color-separating electrode structure described in claim 1, the apparatus comprising:

a device for welding the color-separating electrode body to the frame along the contact portions by having two welding electrodes rotate to travel along their respective welding paths on a front face of the color-separating electrode body;

wherein each of the welding electrodes is in the shape of a truncated cone in order that a welding face of each of the welding

electrodes in contact with the color-separating electrode body is substantially perpendicular to a straight line passing through a flexural center of corresponding one of the flexed portions and corresponding one of the contact portions.

9. An apparatus for manufacturing the color-separating electrode structure according to claim 8, in which a cone angle of the welding electrode is larger than an angle which the color-separating electrode body forms with the plane inside the frame and is smaller than an angle which the color-separating electrode body forms with the plane outside the frame.